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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,262	10/08/2003	Koichi Higuchi	0171-1025P	5661

2292 7590 12/19/2005

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
ZIMMER, MARC S	
ART UNIT	**PAPER NUMBER**
1712	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)
	10/680,262	HIGUCHI ET AL.
	Examiner	**Art Unit**
	Marc S. Zimmer	1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 08 October 2003.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1,2 and 6-13 is/are rejected.

7)☒ Claim(s) 3-5 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/08/03,05/11/05.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Noda et al., U.S. patent # 6,372,355. Noda et al. disclose a laminated article comprising a base resin as the substrate, a base protective layer, which represents an intermediate layer in the laminated article, and a surface protective layer. The surface protective layer is, in one embodiment, a curable silicone resin to which may be added colloidal silica (column 16, lines 34-47). The base protective layer and its chemical makeup is comprehensively described over paragraphs 6 to 15. This layer is derived from vinylic/acrylic monomers of which 5 to 70% contain ultraviolet light absorbing groups according to formulae (1) or (2). See column 6, lines 43-48. Monomers adhering to formulae (3) and (4) are an optional contributor to the structure of the base protective layer. Relevant to the present discussion, it is stated in column 6, lines 60-66 that, where the surface protective layer comprises a curable silicone, it is preferred that the aforementioned monomers are copolymerized with one containing hydrolyzable silyl groups. Monomers bearing hydrolyzable silyl groups are outlined in columns 9 and 10. These monomers contribute 2 to 70% of the total weight of the polymer (column 10, lines 51-55). The balance of the polymer is derived from monomers of the type delineated in column 11 and the top of column 12.

It is acknowledged that column 14 states that, in those instances where a silyl group is attached to the polymer, the polymer is curable- there being a suggestion taken in the full context of the disclosure that no crosslinking agent is needed. Nevertheless, it is mentioned in column 15 that dehydrating agents (column 15, lines 6-11) are added to the base protective layer composition to impart storage stabilty. These same materials will, when measures are no longer taken to strenuously exclude water, serve to cure the silyl group-functionalized polymer hence Applicant's requirement for component (B) is satisfied.

Finally, Noda contemplates in column 15, lines 18-39 that the ultraviolet light absorbing polymer may be combined with other polymers including urethane resins, acrylic resins, vinyl chloride resin, etc. Specific embodiments of urethane and acrylic resins are not recited. Therefore, it is impossible to ascertain whether these would inherently possess the glass transition temperature mandated of component (C). It is at least known, however, that vinyl chloride resin has a glass transition temperature exceeding 80° C so this limitation is also met by the reference base protective layer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al., U.S. patent # 6,372,355 in view of Nakamura et al., U.S. patent Application Publication No. 2002/0091197. Noda only makes cursory mention of (meth)acrylic copolymers as embodiments of the other polymer that may be combined with component (A) of the primer composition. To find out what (meth)acrylic polymers would best serve in this capacity, the skilled artisan would turn to the teachings of the related coating arts. Nakamura et al. describe coating materials for various surfaces including glass, plastics, fibers, etc (paragraphs 3 and 154) that convey an array of desirable properties to the substrates on which they are applied. Of the coating materials known to the skilled artisan, they identify those derived from cyclohexyl (meth)acrylate as being most favorable for the enhanced weathering resistance these polymers impart (paragraph 7). The purpose of their disclosure is to outline coating materials that feature the benefits of the cyclohexyl group-substituted acrylate polymers, but with improved flexibility, processability, and adhesion. The polymers they describe contain (i) between 5% and 95% by weight of a repeat unit derived from cyclohexyalkyl-containing acrylic monomer (paragraph 19), (ii) repeat units derived from vinyl/acrylic monomer containing a reactive group (paragraphs 29-42), (iii) repeat units derived from monomers equivalent to those mentioned under the heading (c-3) in Applicant's Specification (paragraph 44+), and also repeat units bearing UV absorbent groups (paragraph 56). The preferred amounts of (i), (ii), and (iii) are delineated in paragraph 62. Notably, the makeup of the inventive polymers (see Examples in Table 1) is similar to that of component (C) of the instant invention and, therefore, the glass transition temperatures of these polymer compounds are, likewise similar.

Allowable Subject Matter

Claims 3-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. There is no clear motivation suggested by the prior art to replace the dehydrating agents disclosed by Noda with one that is amino-functional. Furthermore, it would, in the Examiner's estimation be improper to assert that amino-functional silanes are equivalents of the organosilicon compounds and silicates mentioned by the disclosure, particularly since amine-functional silanes have a self-catalyzing affect that might not be desirable within the context of Noda's invention.

Valet et al., U.S. patent # 5,420,204 is cited as being of interest for their description of a composition quite similar to that presently claimed. While close in scope with the instant invention, it is not clear that this document represents an anticipatory disclosure because it cannot be determined with any certainty whether or not the methacrylic copolymer, component (b), would inherently possess the glass transition temperature required of Applicant's component (C). Example 10 gives a specific example of component (b) but it is derived from five different monomers and glass transition temperature data on similar polymers seems to be unavailable.

Funaki et al., U.S. patent # 5,191,045 teaches a polymer equivalent to component (A) but there is no mention of a second polymer that would correspond to component (C).

It is noted that EP 1 036 834 cited by Applicant appears to have a disclosure identical to that of U.S. 6,372,355.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 12, 2005

Marc Zimmer
Marc Zimmer
AU 1712